County Agent Posters

4-H Lego Challenge Samantha Horn

Teaching engineering, teamwork, communication, problem solving, math concepts, and soft skills through Lego educational program. Youth have the chance to use their imagination to build their very own island but it's never as easy as it seems. During the program youth have different challenges thrown at them they have to overcome.

Arkansas 4-H is Hopping Bethany Barney

4-H Rabbit projects is a fast growing project area with the majority of 4-H'ers not knowing where to start to get information on their project. Arkansas 4-H Rabbit Project group on Facebook was created to fill the need for educating 4-H'ers with rabbit projects. It started as a way to help local 4-H'ers in Little River County during 2020 and has grown to include 4-H'ers and FFA Members across Arkansas. This group is also great for Agents to learn more about rabbits to be able to help their 4-H'ers with their rabbit projects.

Assessing the Pig Brig Trap System as a Tool to Control Feral Hogs Amy Simpson, Cindy Ham, Dr. Becky McPeake, Kim Rowe & Stacy Stone

Feral hogs are a growing problem across Arkansas and many other states. A non-native, invasive species, their agricultural and ecological damage is estimated to cost $1.5 billion each year. Specifically in Arkansas, the damage is estimated at $19 million annually. The impacts on producers include loss of crops, injury and disease transmission to livestock, and property damage. Many methods of control have been used to attempt to control feral hog populations, including individual shooting, airborne eradication, and several trapping systems. Trapping systems like Game Changer and Boar Buster work well, but they require a cellular signal to drop the gate or trap remotely and are expensive and heavy. In rural Arkansas, cellular service is not always available. Our group of southwest Arkansas county agents and UADA Wildlife Specialist Dr. Becky McPeake wanted to test the effectiveness of the Pig Brig Trap System, which does not require cellular service, is thousands of dollars cheaper than other traps, and is lightweight. Three different farms with feral hog damage in Hempstead, Nevada, and Clark Counties were used as our trapping sites beginning in September 2021. Pre-baiting before setting up the trap was conducted to condition the hogs to bait. Game cameras were used to count the number of sounders and the number of hogs in each sounder coming to the bait. The trap was set up according to the included directions. We were successful at trapping the complete sounders at each site. We concluded that the Pig Brig Trap System is an effective, easy to set up, economical option for producers to help keep their feral hog populations in check. However, we did not have any boars or multiple sounders coming to each trap site. More demonstrations will be needed to test the trap's effectiveness in those situations. Also, as the trap is used more and more, the longevity of the net, straps, and anchors can be assessed more accurately. To date these results have been shared with producers at the Four States Ag Expo, at a state-wide in-service for fellow agents, and at row crop production meetings.

Assessment Of Foliar Applied And Fertilizer- Impregnated Molybdenum For Effect On Nitrate-Nitrogen Concentration In Johnsongrass Brian Haller & Danny Griffin

Toxic nitrate accumulation is a recurring problem in summer forages during drought periods in summer. Acute nitrate poisoning causes anoxia in animals. Nitrate toxicity occurs most often during periods of drought, combined with nutrient deficiency, cloudy weather, or when heavy N applications have been made. No good recommendation exists for reducing these toxic levels in forage. Micronutrients play a major role in nitrate reductase (NR) activity. If Mo seed treatment or foliar Mo application can reduce toxic forage nitrate concentrations to safe levels for livestock use, producers could benefit. Application of Mo as foliar applied or impregnated fertilizer did not reduce incidence or concentration of high nitrate-N levels in samples of johnsongrass.

Determining Wet Soil Tolerance of Four Clover Species Jennifer Caraway, John Jennings, Kenny Simon & Ouachita District Ag Agents

Many low-lying pastures in Arkansas are frequently waterlogged in late winter and early spring making it difficult to maintain good stands of different forages including legumes. This trial looked at the wet soil tolerance of four different clover species. The goal was to determine if any would be a suitable option for those low-lying pastures that tend to stay wet through the late winter and early spring months leaving fewer forage options. Planting was done on October 8th of 2020 utilizing Arrowleaf (Blackhawk), Balansa (Fixation), Crimson (Dixie), and White (Durana) clovers. The clover species chosen were clovers that were readily accessible in the state. The trial was replicated four times and planted using a no-till planting method. Results conducted during this study on very wet soil, showed that Balansa clover had excellent growth and stand density, but stands of Crimson and Arrowleaf clovers were thin and poor. Balansa had a canopy height of 20" on April 20th compared to a canopy height of only 7" for the Durana white clover. Maturity of Balansa appears to be between that of Crimson clover (very early) and that of Arrowleaf clover (very late). April to early May appears to be the period of highest productivity for Balansa. There was minimum forage growth in fall and winter, however, as day length increased, and temperature warmed upright forage growth was promoted with Arrowleaf and Crimson annual clovers.

Effect Of Herbicide Sod-suppression On Yield Of Late-summer Planted Forages For Fall Grazing Kim Rowe, Kenny Simon, John Jennings & Daniel Rivera

This demonstration was established to compare yields of ten late-planted fall forages planted into mowed sod versus herbicide-suppressed sod. Three summer annuals were planted on August 27th and seven winter annuals were planted on September 14th into two blocks. Block 1 received pre-plant herbicide on Aug 18 whereas Block 2 did not receive pre-plant herbicide. The entire site was mowed to 2-3" height prior to planting with a no-till drill. Yields were measured in Block 1 approximately 2 months post planting. Block 2 did not achieve sufficient growth to measure fall yield concluding that herbicide suppression of the existing sod is necessary for some late-planted annuals to achieve sufficient production needed for fall grazing.

Family & Farmsteading Kris Boulton, Kristal Draper & Nicole Nichols

Family & Farmsteading was a multi-session, collaboration with Ag, 4-H & FCS. Topics included were dairy goats, fall gardening & fiber fun. Each session provided hands-learning. Topics covered included animal husbandry, 4-H projects, food safety, AR Food Act and entrepreneurship. Attendees expressed knowledge gained and intent to incorporate new practices.

Little Hooves Teach Big Lessons Maleigha Cook

Often the Horse project is synonymous with 1,000 pound animals, a lot of space and a lot of money! Two tiny breeds have made a big impact on Craighead County Horse project members. The American Miniature Horse and the American Shetland pony offer much smaller versions of their bigger cousins but teach exactly the same lessons. See how Craighead county utilizes these small breeds to effectively, economically and efficiently teach their Equine minded 4-Hers all they need to know about horses!

Sebastian County in the Works Shaw nee Tichenor

Overview of Sebastian County

Keys to a Successful Rural Food Access Initiative Julie Goings, Jessica Vincent & Darby Treat

Studies have shown populations with limited access to healthy foods have a higher risk for developing preventable chronic diseases. The relevance of this intervention and the data collected rests in the ability to serve as a prevention and treatment-based approach to increasing the availability and access to healthy foods for low-income residents.

Using sUAS and Multispectral Sensors to Quantify Feral Hog Damage in Forages Michael Paskewitz, Jason Davis, Becky McPeake & Megan Billson

The main objectives of this project were to collect whole field imagery of feral hog damage in forages using small Unmanned Aerial System (sUAS) equipped with a multispectral sensor to develop a workflow that highlights and quantifies damaged areas. The team is working to develop an index or workflow using a combination of two bands (Red Edge, NIR) that highlights damage as a heat map. The results were used to visualize and quantify the extent of damage across a whole field. This project demonstrated the potential value of sUAS and multispectral imagery in efficiently quantifying hog damage in forage production systems.

Zinc Fertilizer Source in Rice Production Andrew Sayger & Matt Fryer

Zinc (Zn) deficiency is the most common micronutrient deficiency in rice production. Zn deficiency can range from yield reductions of 10% to 100% yield loss in severe cases.